

WHAT IS CLAIMED IS:

1. An ultrasonic surgical instrument comprising:
an end effector including blade and clamp means for the
engagement of tissues located therebetween;
- 5 an elongated shaft element having said end effector arranged at a
first end thereof;
- an elongated tubular member extending about said elongated shaft
10 element in coaxial relationship, said clamp means being movable
relative to said blade and said tubular member, said elongated
tubular member having a first end in operative engagement with
said end effector;
- 15 a handle portion for receiving second opposite ends of respectively
said elongated shaft element and said elongated tubular member,
said handle portion including finger-actuatable scissors-like thumb
and finger ring structure for imparting axial displacement between
said elongated shaft element and said elongated tubular member,
20 said tubular member biasing said clamp means so as to cause said
blade and clamp means to selective open and close relative to each
other.
2. An ultrasonic surgical instrument as claimed in Claim 1, wherein
25 said elongated tubular member is fixedly attached to said handle portion, said
thumb and finger ring structure having a pivotable portion hingedly connected to
the second end of said elongated shaft element, whereby actuation of said

pivotal portion imparts said axial displacement to said elongated shaft element relative to said elongated tubular member.

3. An ultrasonic surgical instrument as claimed in Claim 2, wherein
5 said pivotal portion is rotatable about a pivot boss fixed to a stationary part of said handle portion.

4. An ultrasonic surgical instrument as claimed in Claim 3, wherein an
insertion arm on said pivotal portion is operatively engaged with said elongated
10 shaft element for imparting axial movement thereto responsive to rotation of said pivotal portion about said pivot surfaces.

5. An ultrasonic surgical instrument as claimed in Claim 1, wherein
said elongated tubular member has the second end thereof slidably journaled in
15 said handle portion, said elongated shaft element being fixedly attached to said handle portion, said thumb and finger ring assembly having a pivotal portion operatively connected with said second end of said elongated tubular member, whereby actuation of said pivotal portion imparts said axial displacement to said elongated tubular member relative to said elongated shaft element.

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6. An ultrasonic surgical instrument as claimed in Claim 5, wherein
said pivotal portion is rotatable about a pin fastened to said handle portion, said
pivotal portion including an actuating extension engageable into an aperture in
said elongated tubular member for imparting the axial displacement thereto
25 responsive to rotational movement of said pivotal portion.

7. An ultrasonic surgical instrument as claimed in Claim 1, wherein
said first end of said elongated shaft element and of said elongated tubular
member comprise cooperative camming structure for selectively opening and
closing said blade and clamp means responsive to relative axial movement
5 between said shaft element and tubular member.

8. An ultrasonic surgical instrument as claimed in Claim 1, wherein
the blade of said end effector comprises a coaxial tip on said elongated shaft
element.
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9. An ultrasonic surgical instrument as claimed in Claim 8, wherein
said blade comprises a stub shaft integrally formed at the first end of said
elongated shaft element, whereby said shaft element forms an ultrasonic blade
extender.
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10. An ultrasonic surgical instrument as claimed in Claim 8, wherein
said blade comprises a stub shaft which is detachably fastened to the first end of
said elongated shaft element, whereby said shaft element forms an ultrasonic blade
extender.
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11. An ultrasonic surgical instrument as claimed in Claim 10, wherein
said blade is fastened to said elongated shaft element through a screw threaded
connection.

12. An ultrasonic surgical instrument as claimed in Claim 1, wherein
said cam means comprises a cam arm mounted on said blade for pivotal
movement relative thereto.
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13. An ultrasonic surgical instrument as claimed in Claim 1, wherein said handle portion includes latching pushbutton means for release of said blade and clamp assembly.

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14. An ultrasonic surgical instrument as claimed in Claim 1, wherein a plurality of axially spaced silastic rings are formed at nodes along the length of said elongated shaft element and blade so as to prevent dispersion of ultrasonic waves to said surrounding elongated tubular member during operation of said instrument.

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15. An ultrasonic surgical instrument as claimed in Claim 1, wherein spring limiter means are formed on said elongated tubular member so as to absorb excessive operating forces and stresses generated responsive to actuation of said handle portion.

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